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EXAMINER				
AJIBADE AKONAI OLUMIDE				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,146

Applicant(s)

STEELE ET AL.

Examiner

OLUMIDE T. AJIBADE AKONAI

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-15 and 17-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19, 29-31 and 46 is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 11-14, 20, 21, 23, 28, 32-45 and 47-49 is/are rejected.
- 7) ☒ Claim(s) 4-7, 15, 22 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 4-7, 15, 22, 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-19, 29-31 and 46 are allowed.

The indicated allowability of claims 1-3, 9, 11-14, 20, 21, 23, 28, 32-45 and 47-49 is withdrawn in view of a different interpretation of previously discovered reference(s) to Becker et al 20040046642. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 32-34, 47 and 49 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 32 is directed to a "medium". However, since the specification does not mention what the medium encompasses, the examiner is providing the broadest reasonable interpretation, which means that the medium could cover forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary meaning of computer-readable media, particularly when the specification is silent (see MPEP 2111.01). The applicants should clarify/narrow the claim to cover

Art Unit: 2617

only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 9, 11-14, 20, 21, 23, 28, 32-45 and 47-49 are rejected under 35 U.S.C. 102(e) as being anticipated by **Becker et al 20040046642 (hereinafter Becker)**.

Regarding **claim 1**, Becker discloses a communications device identification method comprising: providing identification information (group address, see p.4, [0048]) regarding a group of wireless identification devices (RFID tags, see fig. 1, p.2, [0025]) within a wireless communications range of a reader (tag reader 12, see fig. 1, p.2, [0025]); using the provided identification information, selecting one of a plurality of different search procedures (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-

Art Unit: 2617

[0058]) for identifying unidentified ones of the wireless identification devices within the wireless communications range (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]); and identifying at least some of the unidentified ones of the wireless identification devices using the selected one of the search procedures (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Regarding **claim 2** as applied to claim Becker further discloses wherein the providing the identification information comprises determining a range of identifiers of the wireless identification devices which may be within the wireless communications range (determining group addresses to use to search or interrogate, see p.4, [0048], p.5, [0056], [0059]).

Regarding **claim 3** as applied to claim 2, Becker further discloses wherein the providing the identification information comprises determining a number of wireless identification devices which may be within the wireless communications range (using the group address to determining the number of RFID tags 14-1 to 14-n, see p.5, [0056]).

Regarding **claim 9** as modified by claim 1, Becker discloses further comprising communicating data intermediate identified ones of the wireless identification devices and the reader (see p.6, [0070]).

Regarding **claims 11 and 28** as applied to claims 1 and 20, Becker further discloses wherein the reader and the wireless identification devices are configured to implement radio frequency identification device (RFID) communications (see fig. 1, p.2, [0025]-[0026]).

Regarding **claim 12**, Becker discloses a communications device identification method comprising: identifying a first of a plurality of wireless identification devices within a wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]); identifying a second of the wireless identification devices within the wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]); selecting one of a plurality of different search procedures (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]) using to the identifications of the first and second of the wireless identification devices (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]); and identifying at least one unidentified wireless identification device within the wireless communications range using the

selected one of the search procedures (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Regarding **claim 13**, Becker further discloses wherein the first and second of the wireless identification devices comprise wireless identification devices having respective ones of a minimum and a maximum identifier (see p.5, [0057]-[0058]).

Regarding **claim 14**, Becker discloses further comprising communicating with at least one of the identified wireless identification devices using the reader after the identifying (see p.5, [0056]-[0059], P.6, [0069]-[0070]).

Regarding **claim 20**, Becker discloses a wireless communications reader (tag reader 16, see fig. 1, p.2, [0025]) comprising: an antenna configured to communicate wireless signals within a wireless communications range (antenna 16, see fig. 1, p.2, [0026]); and processing circuitry coupled with the antenna (microprocessor 54, see fig. 3, p.4, [0046]) and configured to implement wireless communications with a plurality of wireless identification devices (RFID tags 14, see fig. 1, p.2, [0025]) within the wireless communications range via the antenna (see fig. 1, p.2, [0025]), to analyze a number of wireless identification devices which may be present within the wireless communications range with respect to a range of identifiers of wireless identification devices (group address, see p.4, [0048]), which may be present within the wireless communications range (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5,

[0057]-[0058]), to select one of a plurality of search procedures using the analysis (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]), and to identify at least one of the wireless identification devices within the wireless communications range using the selected search procedure (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Regarding **claim 21**, Becker further discloses wherein the processing circuitry is configured to estimate the number of the wireless identification devices (using the group address to determining the number of RFID tags 14-1 to 14-n, see p.5, [0056]).

Regarding **claim 23**, Becker further discloses wherein the processing circuitry is configured to estimate the range of identifiers of the wireless identification devices (determining group addresses to use to search or interrogate, see p.4, [0048], p.5, [0056], [0059]).

Regarding **claim 32**, Becker discloses an article of manufacture comprising: a medium comprising executable instructions (see figs. 1 and 3, p.2, [0026], p.3-4, [0045]) configured to cause processing circuitry of a wireless communications reader (tag reader 12, see fig. 1, p.2, [0026]) to: access information (group address, see p.4, [0048]) regarding a plurality of wireless

identification devices which may be within a communications range of the wireless communications reader (see p.4, [0048], p.5, [0056]-[0058]); selecting one of a plurality of different search procedures (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]) using the accessed information, wherein the different search procedures comprise procedures for identifying unidentified ones of the wireless identification devices (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]); and identify unidentified ones of the wireless identification devices using the selected one of the search procedures (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Regarding **claim 33** as applied to claim 32, Becker further discloses wherein the executable instructions are configured to cause the processing circuitry to access the information comprising a range of identifiers of the wireless identification devices and a number of the wireless identification devices (determining group addresses to use to search or interrogate, see p.4, [0048], p.5, [0056], [0059]).

Regarding **claim 34** as applied to claim 32, Becker further discloses wherein the executable instructions are configured to cause the processing circuitry to implement wireless communications with at least one of the identified wireless identification devices (wireless communication between the tag reader 12 and the tags 14, see p.5, [0060]).

Regarding **claim 35, 37 and 39** as applied to claims 1, 12 and 20, Becker further discloses wherein the plurality of different search procedures individually comprise a search procedure for identifying the at least some of the unidentified ones of the wireless identification devices within an entirety of the same wireless communications range of the reader (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]).

Regarding **claim 36, 38 and 40** as applied to claims 1, 12 and 20 Becker further discloses wherein the plurality of different search procedures individually comprise different steps which are performed to identify the at least some of the unidentified ones of the wireless identification devices (reader 12 searches for a group of RFID tags based on the RFID group address, wherein the search/interrogation conducted by the tag reader 12 is based on searching using the group identifier 1110001110xxx, that is based on the first nine bits of the

group address, or a search using 01000xxx1101, that is based on the first five and last four bits of the group address, see p.5, [0056]-[0059]).

Regarding **claims 41 and 43** as applied to claim 1, Becker further discloses wherein each search procedure is configured to provide unique identifications which completely identify the wireless identification devices (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]).

Regarding **claim 42** as applied to claim 1, Becker further discloses wherein the providing comprises the identification information prior to any communications of the reader with wireless identification (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]).

Regarding **claims 45 and 47** as applied to claims 12 and 32, Becker further discloses wherein the search procedures are configured to be implemented independent of one another to provide unique identifications which completely identify the wireless devices (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]).

Regarding **claim 44** as applied to claim 1, Becker further discloses wherein the processing circuitry is configured to analyze the number of wireless identification devices prior to any communications of the reader with the wireless identification devices (using the group address to determining the number of RFID tags 14-1 to 14-n, see p.5, [0056]).

Regarding **claims 48 and 49** as applied to claims 1 and 32, Becker further discloses wherein the search procedures are individually configured to enable identification of a plurality of the wireless identification devices during a single execution of the individual search procedure (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over of **Becker et al 20040046642 (hereinafter Becker) in view of Shanks et al 7,075,436 (hereinafter Shanks)**.

Regarding **claims 10 and 27** as applied to claims 9 and 20, Becker as modified by Shanks discloses the claimed limitation except wherein the communicating from at least one of the wireless identification devices to the reader comprises using backscatter modulation. In the same field of endeavor, Shanks discloses wherein the communicating from at least one of the wireless identification devices to the reader comprises using backscatter modulation (see col. 8, lines 4-13). It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shanks into the system of Becker by using backscatter modulation to communicate between the tag reader and the tags for the benefit of not having to add a radio transmitter at to the RFID tags.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Olumide T Ajibade-Akonai/

Examiner, Art Unit 2617

/Charles N. Appiah/

Supervisory Patent Examiner, Art Unit 2617

